

WHAT IS CLAIMED IS:

- 1 1. A method of processing test data that is relevant to specific behavior of
2 visitors of at least one network accessible site comprising the steps of:
3 receiving pre-test information related to determining an
4 estimation of said anticipated behavior of said visitors to said at least one
5 network accessible site;
6 monitoring actual behavior of said visitors upon accessing said
7 at least one network accessible site; and
8 employing said pre-test information and a Bayesian estimation
9 approach to using said monitoring of said actual behavior so as to provide
10 updated estimations of subsequent visitor behavior.
- 1 2. The method of claim 1 wherein said step of receiving said pre-test
2 information includes accessing a probability distribution characterization of
3 said anticipated behavior, including utilizing confidence parameters that are
4 based on confidence of accuracy of estimates.
- 1 3. The method of claim 1 wherein said behavior relates to whether said
2 visitors are converted while accessing said at least one network accessible
3 site, said pre-test information and said updated estimations being related to
4 conversion rates.
- 1 4. The method of claim 1 wherein each said network accessible site is a
2 website available via the global communications network referred to as the
3 Internet.
- 1 5. The method of claim 1 further comprising a step of determining a required
2 test sample size for said monitoring said actual behavior in order to provide
3 said updated estimations of subsequent visitor behavior, including adaptively
4 adjusting said determination of said required test sample size on a basis of
5 achieving a target confidence regarding said updated estimations.

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1 6. The method of claim 5 wherein said step of determining said required test
2 sample size includes utilizing negative binomial sampling.

1 7. The method of claim 5 wherein said step of determining said required test
2 sample size includes utilizing systematic sampling.

1 8. The method of claim 1 further comprising a step of determining a post-test
2 estimation of said subsequent visitor behavior using a negative binomial
3 sampling approach that is based on a required target confidence level.

1 9. The method of claim 8 wherein said negative binomial sampling approach
2 is used to calculate a predicted conversion rate of a desired behavior at a
3 website.

1 10. A method of processing test data that is relevant to specific behavior of
2 visitors of at least one network accessible site comprising the steps of:
3 detecting conversions at said at least one network accessible
4 site, where said conversions are specific interactions that are entered by said
5 visitors; and
6 utilizing negative binomial sampling to determine an adaptive
7 minimum sample size for estimating a conversion rate for subsequent visitors,
8 including basing said adaptive minimum sampling size and an estimate of
9 said conversion rate on said detecting of said conversions and upon a
10 measure of confidence.

1 11. The method of claim 10 wherein said step of utilizing negative binomial
2 sampling includes determining a target number (m) of conversions and
3 an anticipated number (T) of visitors in order to reach m, with T having a
4 negative binomial distribution and with said estimate of said conversion rate
5 being equal to m/T .

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1 12. The method of claim 10 wherein said detecting step includes monitoring
2 visitor activity in interaction with a website of the Internet.

1 13. The method of claim 10 wherein said measure of confidence is a
2 confidence level regarding accuracy of said estimate of said conversion rate.

1 14. A computerized system for processing test data that is relevant to
2 specific behavior of visitors of at least one network accessible site comprising:
3 a first module component configured to determine an initial
4 conversion-related estimate on a basis of pre-testing information;
5 a second module component configured to generate updates of
6 said conversion-related estimate in response to monitored behavior of said
7 visitors of said at least one network accessible site; and
8 a third module component configured to dynamically adjust a
9 measure of a required test sample size of said visitors while maintaining a
10 target statistical confidence level.

1 15. The system of claim 14 further comprising a fourth module component
2 configured to utilize negative binomial sampling to generate measures of said
3 test sample size for generating said conversion-related estimate based on
4 sub-populations of said visitors, said third module component being
5 distinguishable from said fourth module component by applying systematic
6 sampling rather than negative binomial sampling.

1 16. The system of claim 15 wherein said first, second, third and fourth
2 module components are cooperative to determine said conversion-related
3 estimates as point estimates of conversion rates of said visitors to act in a
4 desired manner, each said act being a conversion.

1 17. The system of claim 16 further comprising an execution module which
2 monitors said visitors of a website, such that conversions of said visitors are
3 detected.

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1 18. The system of claim 14 wherein said second module component is
2 enabled to generate said updates utilizing Bayesian estimation.

1 19. The system of claim 14 wherein said third module component is enabled
2 to utilize negative binomial sampling in determining said measure of said
3 required test sample size.

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